|                  | Index of Claims     |          |            |          |               |           |                         |                                       |                 |         |           |          |  | Application No.  |            |              |          |          |            |            |              |            | Applicant(s)    |          |                 |          |                              |                 |          |  |  |
|------------------|---------------------|----------|------------|----------|---------------|-----------|-------------------------|---------------------------------------|-----------------|---------|-----------|----------|--|------------------|------------|--------------|----------|----------|------------|------------|--------------|------------|-----------------|----------|-----------------|----------|------------------------------|-----------------|----------|--|--|
|                  |                     |          |            |          |               |           |                         |                                       |                 |         |           |          |  | 1                | 10/054,683 |              |          |          |            |            |              |            |                 |          | OLD ET AL.      |          |                              |                 |          |  |  |
|                  |                     |          |            |          |               |           |                         |                                       |                 |         |           |          |  |                  | Examiner   |              |          |          |            |            |              |            |                 |          | Art Unit        |          |                              |                 |          |  |  |
|                  |                     |          |            |          |               |           |                         |                                       |                 |         |           |          |  |                  |            |              |          |          |            |            |              |            |                 |          |                 |          |                              |                 |          |  |  |
|                  |                     |          |            |          |               |           |                         |                                       |                 |         |           |          |  | MISOOK YU, Ph.D. |            |              |          |          |            |            |              |            |                 | 12       |                 |          | $\perp$                      |                 |          |  |  |
|                  |                     |          |            |          |               |           | ¬                       | г                                     |                 |         |           |          |  |                  | _          | Г            |          |          |            |            |              | ר          |                 |          |                 |          |                              | 1               |          |  |  |
|                  | √ Rejected          |          |            |          |               |           |                         |                                       | (Through numera |         |           |          |  |                  | al)     N  |              |          |          | Non-Electe |            |              | ed         | A               | Appeal   |                 |          |                              |                 |          |  |  |
| <del>-    </del> |                     |          |            |          |               |           |                         | -                                     | Cancelled       |         |           |          |  |                  |            |              |          | <u> </u> |            |            |              | -          |                 |          |                 |          |                              |                 |          |  |  |
|                  | = Allowed           |          |            |          |               |           |                         |                                       | ÷ Restricted    |         |           |          |  |                  | I Interfe  |              |          |          |            | erer       | nce          |            | 0               | Objected |                 |          | 1                            |                 |          |  |  |
|                  |                     |          |            |          | L             |           |                         | · · · · · · · · · · · · · · · · · · · |                 |         |           | {        |  |                  |            |              |          |          | J          | Ш          |              |            |                 | ]        |                 |          |                              |                 |          |  |  |
| [                | Cla                 | im       | Date       |          |               |           | te                      |                                       |                 | ۱ ٦     | Cla       | aim      | Ì  |                  | Date       |              |          |          |            | ٦          | С            | laim       | Π               | Date     |                 |          |                              | $\neg$          |          |  |  |
| ĺ                | <u>_</u>   <u>_</u> |          |            |          |               |           |                         |                                       |                 | 1       | _ <u></u> |          | ဂ္ဂ  |                  |            |              |          |          |            | 7          |              |            |                 |          |                 |          |                              |                 |          |  |  |
|                  | Final               | Original | 1/12/05    |          |               |           |                         |                                       |                 |         | Final     | Original | 1/12/05  |                  |            |              | ł        |          |            |            | Final        | Original   |                 |          |                 |          |                              |                 |          |  |  |
|                  | _                   | Ō        | -          |          |               |           |                         |                                       |                 |         | _         | Ō        | -  |                  |            |              |          |          |            |            | -            | Ō          |                 |          |                 |          |                              |                 |          |  |  |
| ĺ                |                     | 1        | N          | _        | _             | $\perp$   | $\Box$                  |                                       | _               | ]       |           | 51       | N  | $\bot$           |            | $\Box$       | $\Box$   | 1        | Ţ          |            |              | 101        | П               |          |                 |          |                              |                 |          |  |  |
| }                |                     | 3        | N          | $\dashv$ | +             | +         | +                       | $\dashv$                              | ╬               | -       |           | 52<br>53 | N<br>N   | +                | $\vdash$   | $\dashv$     | -        | +        | +          | $\dashv$   |              | 102        | ╁╼╁             | +        | +               | +        | +                            | $\vdash$        | -        |  |  |
|                  |                     | 4        | N          |          | T             | $\dagger$ |                         | $\dashv$                              | +-              | 1 1     |           | 54       | N  | †                | $\Box$     | 7            | _        | +        | +          | 7          | $\vdash$     | 104        | H               |          | Н               | 1.       | +                            | H               | _        |  |  |
|                  |                     | 5        | N          | $\Box$   | 1             |           | П                       |                                       | $\perp$         | ]       |           | 55       | N  |                  |            | $\Box$       | $\Box$   |          | 1          | ]          |              | 105        | П               |          | П               | $\perp$  |                              |                 |          |  |  |
|                  |                     | 6<br>7   | N          | $\dashv$ | -             | +         | +                       | +                                     | +-              | -       |           | 56<br>57 | N<br>N   | +                | $\vdash$   | -            | +        |          | +          | -          |              | 106        | $\vdash$        |          | $\vdash$        | -        | +                            | $\vdash$        | -        |  |  |
|                  |                     | 8        | N          | $\dashv$ | +             | +         | +                       | $\dashv$                              | +-              | ┪.      |           | 58       | N  | +                | $\vdash$   | $\dashv$     | +        | +        | +          | ╣.         | <del> </del> | 108        | H               | -        | $\Box$          | +        | ╁                            | $\vdash$        | -        |  |  |
|                  |                     | 9        | z          |          |               |           |                         |                                       |                 | ]       |           | 59       | N  |                  |            |              |          |          |            | ]          |              | 109        |                 |          |                 |          |                              |                 |          |  |  |
|                  |                     | 10<br>11 | 2 2        |          | _             | +         | +                       | _                                     | -               | -       |           | 60       | N  | 4                | Н.         | _            | $\dashv$ | 4        | +          | 4:::       | -            | 110        |                 | -        | -               | 4        | +                            | $\sqcup \bot$   | 4        |  |  |
| 1                |                     | 12       | \ <u>\</u> | -        | +             | ╁         | ╅┪                      | +                                     | +               | - Tia   |           | 61<br>62 | N<br>N   | +                | +          | $\dashv$     | $\dashv$ | +        | +          | -43        | <b>-</b>     | 111        | $\vdash$        |          | H               | $\dashv$ | +                            | $\vdash$        | $\dashv$ |  |  |
| Ì                |                     | 13       | V          |          |               |           |                         |                                       |                 | ] [     |           | 63       | N  |                  |            | 1            |          |          |            | ]          |              | 113        |                 |          |                 |          |                              |                 | <u> </u> |  |  |
| -                |                     | 14       | 1          | _        |               | $\bot$    | $\downarrow \downarrow$ | $\perp$                               | 1               |         |           | 64       | N  | +                | $\Box$     | 4            | $\dashv$ | _        | $\perp$    | ]          |              | 114        |                 |          | $\Box$          |          |                              | П               |          |  |  |
| }                |                     | 15<br>16 | N          | $\dashv$ | +             | +         | ╁┤                      | +                                     | -               | +       |           | 65<br>66 | N  | +                | +          | +            | +        | +        | +          |            | _            | 115<br>116 | $\vdash$        |          | +               | -        | +                            | $\vdash$        | -        |  |  |
| ŀ                |                     | 17       | N          |          | +             | 十         | 11                      | -                                     |                 |         |           | 67       | N  |                  | H          | 7            | $\dashv$ | +        | ✝          |            |              | 117        | $\vdash$        | +        | +               | $\dashv$ | ╁                            | $\forall$       | -        |  |  |
| [                |                     | 18       | N          | $\Box$   | 1             | Ī         |                         | $\Box$                                |                 | ]       |           | 68       | N  |                  |            | $\Box$       | $\Box$   | $\Box$   | Ţ          |            |              | 118        |                 |          |                 |          |                              |                 |          |  |  |
|                  |                     | 19<br>20 | 2 2        | $\dashv$ | +             | +         | +                       | +                                     | +               | ┨.      |           | 69<br>70 | N<br>N   | +                | $\vdash$   | 4            | 4        | +        | +          | 4.0        | <u> </u>     | 119<br>120 | ⊦⊣              | +        | $\vdash$        | +        | +                            | $\vdash$        | 4        |  |  |
|                  |                     | 21       | N          | $\dashv$ | $\dashv$      | +         | +                       | +                                     | +               | 7       |           | 71       | N  | +                | +          | $\dashv$     | $\dashv$ | $\dashv$ | ╅          | $\dashv$   |              | 121        | Н               |          | +               | +        | +                            | ╁┼              | $\dashv$ |  |  |
|                  |                     | 22       | N          |          | ightharpoonup |           |                         | $\Box$                                |                 |         |           | 72       | N  |                  |            |              |          |          |            |            |              | 122        |                 |          |                 |          |                              |                 |          |  |  |
| }                |                     | 23<br>24 | Z          | $\dashv$ | _             | +         | +                       | _                                     | -               | - 5     |           | 73<br>74 | N  | +                | <u> </u>   | $\dashv$     | 4        | _        |            | 43         |              | 123        | Н               | $\perp$  |                 | _        | 4_                           | $\sqcup$        | 4        |  |  |
| ł                |                     | 25       | N          | $\dashv$ | $\dashv$      | ╁         | ╁┽                      | +                                     | +               | # 4     |           | 75       | <b>V</b>   | +-               | +          | ╅            | -+       | -        | ╁          | -          |              | 124<br>125 | H               | +        | +               | +        | +                            | ╁               | $\dashv$ |  |  |
| į                |                     | 26       | Ν          |          |               |           |                         |                                       |                 | 1. [    |           | 76       | V  |                  |            |              |          | 1        | $\top$     |            |              | 126        | H               |          | Ħ               |          | +                            | $\Box$          | 1        |  |  |
| ļ                |                     | 27       | N          | _        | 4             | _         |                         |                                       |                 |         |           | 77       | <b>√</b>   |                  | $\Box$     | $\Box$       | $\Box$   |          | $\perp$    |            |              | 127        |                 |          |                 |          | $oldsymbol{oldsymbol{\Box}}$ |                 |          |  |  |
| ŀ                |                     | 28<br>29 | N          | $\dashv$ | +             | +         | ╁                       | $\dashv$                              | +               | 44      |           | 78<br>79 | √<br>N   | +                |            | +            | +        | +        | +          | 45         |              | 128<br>129 | $\vdash$        | +        | $\sqcup$        |          | -                            | $\vdash$        | 4        |  |  |
| ŀ                |                     | 30       | <b>∨</b>   | +        | +             |           | $\dagger$               | -                                     | +               | ┪"╣     |           | 80       | N  | +                | +          | +            |          | +        | ╁          | $\exists$  |              | 130        | Н               | +        | H               | +        | +                            | $\vdash$        | -        |  |  |
|                  |                     | 31       | √          |          |               |           |                         |                                       |                 | 1 1     |           | 81       | N.   |                  |            | ユ            |          |          | I          |            |              | 131        |                 |          |                 |          |                              |                 |          |  |  |
| -                | _                   | 32       | N          | 4        | +             | +-        | $\perp$                 | 4                                     |                 |         |           | 82       | N  | $\perp$          |            | 4            | 4        | _        | 1          | 4          |              | 132        | Ц               |          |                 |          | $\perp$                      |                 |          |  |  |
| ŀ                | -                   | 33<br>34 | N          | $\dashv$ | +             | ╁         | ++                      | +                                     | +               | -34     |           | 83<br>84 | $\vdash$   | +                |            | +            | $\dashv$ | +        | +          |            |              | 133<br>134 | H               |          | +               | -        | +                            | $\vdash$        | _        |  |  |
| t                |                     | 35       | N          | $\dashv$ | +             | +         | $\dagger \dagger$       | $\dashv$                              | +               | 1       |           | 85       | <del>                                     </del> | +                | $\dashv$   | +            | $\dashv$ | +        | +          |            | <b></b>      | 135        | H               | +        | H               | $\dashv$ | +                            | $\vdash$        | $\dashv$ |  |  |
| [                |                     | 36       | N          | $\Box$   | $\Box$        |           |                         |                                       |                 | ] [     |           | 86       |  |                  |            |              |          |          |            | ] ',       |              | 136        |                 |          |                 |          |                              |                 |          |  |  |
| ļ.               |                     | 37       | N          | -        | +             | +-        | +1                      | -                                     |                 | 4       |           | 87       | $\vdash \vdash$                                  |                  |            | 4            | _        | 4        | +          | 1, 2       |              | 137        | $\sqcup$        |          | $\sqcup$        |          | _                            | Ц.              |          |  |  |
| -                |                     | 38<br>39 | N<br>N     | $\dashv$ | +             |           | +                       | $\dashv$                              | +               | - }     |           | 88<br>89 | $\vdash$   | +                | +          | +            | +        | +        | +          | -          |              | 138<br>139 | Н               |          | +               | +        | +-                           | ╁╌┼             | -        |  |  |
| Ì                |                     | 40       | N          | $\dashv$ | $\top$        | +         | ++                      |                                       | +               |         |           | 90       | $\vdash$   | $\top$           | +          | $\dagger$    | _        | $\dashv$ | +          |            |              | 140        | $\vdash$        |          | $\Box$          | $\dashv$ | +-                           | ++              | ┪        |  |  |
| [                |                     | 41       | N          | _        | $\Box$        |           |                         | 1                                     | $\bot$          | ] [     |           | 91       |  | П                |            | ightharpoons | $\Box$   |          |            |            |              | 141        |                 | 丄        |                 |          |                              |                 |          |  |  |
| }                |                     | 42<br>43 | N<br>N     | +        | -             | +         | $\dashv$                | +                                     | _               |         |           | 92<br>93 | $\vdash$   | +                | $\perp$    | 4            |          | -        | $\perp$    |            |              | 142        | <del> </del>    | $\perp$  | $oxed{\Box}$    | $\perp$  | $\perp$                      | $\prod$         | _        |  |  |
| }                | $\dashv$            | 44       | N          | $\dashv$ | $\dashv$      | +-        | +                       | -+                                    |                 | -{; , } |           | 94       | $\vdash$   | +                | +          | +            | $\dashv$ | +        | +          | - 3        | <u> </u>     | 143<br>144 | $\vdash \vdash$ |          | ╂╌┤             | +        | +                            | $\vdash \vdash$ | $\dashv$ |  |  |
| ļ                |                     | 45       | N          | ╛        |               | I         | <u>†</u>                |                                       | 士               |         |           | 95       |  | 力                |            | _            | _        |          | $\dagger$  |            |              | 145        |                 |          | $\Box$          | +        | $\top$                       | $\vdash \vdash$ | $\dashv$ |  |  |
| ļ                | $\Box$              | 46       | N          | 1        | $\perp$       | F         | П                       | $\dashv$                              | $\perp$         | ] [     |           | 96       |  | $\Box$           |            | T            | $\Box$   | $\perp$  | Ţ          |            |              | 146        |                 |          | $\square$       | $\perp$  |                              |                 |          |  |  |
| }                |                     |          | N<br>N     | +        | +             | +         | +                       | +                                     | +               | ┨╢      |           | 97<br>98 | $\vdash \vdash$                                  | +                | +          | +            | $\dashv$ | +        | +          | ]          | <u> </u>     | 147<br>148 | $\vdash \vdash$ | +        | $\vdash \vdash$ | +        | 4                            | $\vdash$        | 4        |  |  |
| ŀ                |                     | 49       | N          | $\dashv$ | +             | +         | + +                     |                                       |                 | 1:5     |           | 99       | +  | +                | +          | +            | $\dashv$ | +        | +          | <b>⊣</b> ≠ |              | 148        | $\vdash \vdash$ | +        | $\vdash$        | +        | +                            | -               | $\dashv$ |  |  |
|                  |                     | 50       | N          |          |               |           | Ш                       |                                       |                 | ] [     |           | 100      | $\Box$   |                  | 工          | 1            |          |          | 工          |            |              | 150        |                 |          |                 |          |                              |                 |          |  |  |